Notes on the Crested *Cnemophilus macgregorii* and Yellow-breasted *Loboparadisea sericea* Birds of Paradise

by Andrew L. Mack & Debra D. Wright

Received 23 August 1999

The birds of paradise (Paradisaeidae) are the best known bird family from New Guinea, their centre of distribution. Although a considerable amount of information exists on the 42 family members (Frith & Beehler 1998), much remains to be learned because many species have restricted ranges and live in rugged and isolated areas rarely visited by ornithologists.

Here we report some incidental observations on two such poorly-known species. These observations were made during the course of biological survey work on Crater Mountain, Eastern Highlands Province, Papua New Guinea. Observations were made at three survey camps:

- *Aedo Camp* – 145° 06' E, 6° 42' S; 1,450 m elevation, 5-24 May 1996; lower to mid-montane primary forest.
- *Arosele Camp* – 145° 08' E, 6° 34' S; 1,950 m elevation, 28 September-30 October 1998, montane primary forest.
- *Maimafu Camp* – 145° 04' E, 6° 33' S; 2,800 m elevation, 13 January- 3 February 1999, upper montane primary forest.

Crested Bird of Paradise *Cnemophilus macgregorii*

This species occurs patchily in the central cordillera of New Guinea at higher elevations (usually 2,600-3,500 m) in mossy forest. Little is known of the male displays or mating system. While the nest of *C. macgregorii* is well-known, only egg fragments have been described. A nest and egg collected by A. S. Anthony were described by Rothschild (1898) as being from this species. However, Hartert (1910) expressed doubt about these because they were substantially different from nests and eggs at that time known from other family members. The nest was known from a single observation (Sims 1956) until 1988 when the Friths discovered nests, but no eggs at Tari Gap, Southern Highlands Province, Papua New Guinea (Frith & Frith 1993). They demonstrated that the nest and egg reported by Rothschild (1898) were misidentified.

On 15 January 1999 we discovered a *C. macgregorii* nest at the Maimafu Camp. The nest was similar in construction and location to those described and illustrated by Frith & Frith (1993). It was embedded in the thick moss encompassing a vertical tree trunk c. 20 cm diameter, 2.2 m above ground on the downhill side of the tree on a fairly steep slope. A few stems of an epiphytic orchid grew from both sides of the domed nest and appeared to support it. Unidentified monocotyledon stems that lined the inside of the nest protruded from the entrance located at the side of the nest.

Because of the dense moss layer covering every surface at this site, the nest was very well camouflaged and difficult to locate.

In the nest was a single egg that, by the unblemished translucence of its shell, appeared to be recently laid. The egg measured 38.9 x 25.8 mm. The base colour was a uniform, pale Salmon Colour (colour 106, Smithe 1975), mottled with dull Flesh Ochre (colour 132D, Smithe 1975) markings c. 0.5-1.5 mm long, sparsely on the narrow end, getting denser toward the broad end, there forming an indistinct ring. Superimposed over the base colour and mottling were a few slightly larger markings that were redder, Mahogany Red (colour 132B, Smithe 1975). These markings were also denser toward the broad end, helping to form the ring. Thus the egg fairly closely resembled the egg of *C. loriae* pictured in Frith & Beehler (plate 13, 1998); however the purple-grey markings of the *C. loriae* egg (Frith & Frith 1994) were replaced by narrower Mahogany Red markings on the *C. macgregorii* egg.

The nest and egg were not collected, but photographs of them are deposited in the Academy of Natural Sciences VIREO collection. We checked the nest several times daily and never found evidence of an attending male. The female was still incubating the single egg when we departed the camp on 3 February, 19 days after finding the egg.

While at Maimafu Camp, tape-recordings were made of quiet churring, similar to that described by Rand (Mayr & Rand 1937) as "two timbers rubbing together," and a loud snapping from a female-plumaged bird. Another note rarely heard from female-plumaged birds was a quiet, harsh growl. The adult female's alarm vocalizations in the vicinity of her nest were similar, but louder, harsher and persistent, sounding like scraping or like heavy material being torn. An adult male was observed making a call similar in quality, but shorter, louder and more emphatic "*grwhaa*" that was given once every few minutes. On playback of this call a male investigated but gave no more vocalization. Tape-recordings of these vocalizations are deposited at the Cornell Library of Natural Sounds.

At the Maimafu camp six *C. macgregorii* were mist-netted. Four of the six were in heavy moult. Two female-plumaged birds weighed 81 g and males (adult and subadult) were 91, 95, 95 and 96 g. Males were apparently of the race *sanguineus* based on their deep red-orange dorsal colouration (Frith & Beehler 1998).

Yellow-breasted Bird of Paradise *Loboparadisea sericea*

This is the most poorly-known genus of bird of paradise; the mating system, nest, egg and displays are undescribed. It is patchily distributed and usually uncommon or difficult to locate, perhaps due to it being a canopy-dwelling species (Coates 1990).

We found the species fairly common at both the Aedo and Arosele camps. At Aedo several individuals were observed and one was mist-netted. At Arosele the species was much more common; birds were seen several times and nine individuals were captured (among 325 captures) in mist nets set in the forest understorey. We are unfamiliar with its vocalizations and all birds observed were silent.

An adult male was observed feeding on fruits from an unidentified vine in the lower canopy, one captured bird regurgitated a seed about 1 cm diameter, and one bird collected had small seeds, possibly *Ficus*, in the gut. Observations of birds were usually too brief to note behaviour. All were solitary and unobtrusive in the upper midstorey or lower canopy and none seemed to be associated with mixed foraging flocks or aggregations at fruiting trees. We suspect their food is mostly fruits; none exhibited obvious insect-foraging behaviour (like pulling apart moss tangles or searching limb surfaces). Although all mist-netted birds were caught within 2 m of the ground, we did not observe individuals so close to the ground.

Two specimens were collected, one (AM 843) is deposited at the Bernice P. Bishop Museum, Honolulu and the second (AM 1082) at the PNG National Museum, Port Moresby. Most of the birds captured exhibited light moult of body contour feathers, none had remige moult and two had a single retrix in moult. None had a brood patch. The juvenile male (AM 1082) collected 6 October 1998 had enlarged testes (left testis 9.1 x 3.2 mm).

Four of the males captured 6-22 October 1998 were juveniles. Two were photographed (photographs deposited in the VIREO collection, Academy of Natural Sciences). These young males had fleshy nasal wattles that were mostly fully developed but not quite as swollen as those of adult males. Most notable, however, was that the nasal wattle was either completely black or in one case black becoming mottled with the turquoise-green colour of the adult male. This is the first report of this colouration in the wattle and suggests that the wattle form develops first then acquires its bright colouration. The plumage of these juvenile males was in transition to adult plumage from the described plumage of a first year immature (Frith & Beehler 1998).

Both species discussed here are members of the Cnemophilinae, the basal subfamily of the Paradisaeidae (Frith & Beehler 1998). Much attention has been devoted to the evolution of the extravagant plumage and mating systems in the birds of paradise, particularly among the Paradisaeinae. If the Cnemophilines are indeed the basal cluster in the family, a better knowledge of them is required for studies of evolution within the family to be properly rooted. Crater Mountain would be an ideal site for study of these two species.

Acknowledgments

The surveys were funded by the Wildlife Conservation Society. We thank the many people of Haia, Herowana and Maimafu who assisted us. The National Research Institute and Michael Laki helped sponsor our research visit. John Ericho and Robert Bino of the Research and Conservation Foundation of PNG provided important advice and assisted with logistics. The PNG Department of Environment and Conservation issued all necessary collection and export permits. We thank Cliff Frith for helpful comments on the manuscript. Conservation International subsidized Mack's field time.

References:

Frith, C. B. & Frith, D. W. 1993. Nidification of the Crested Bird of Paradise *Cnemophilus macgregorii* and a review of its biology and systematics. *Emu* 93: 23-33.

Frith, C. B. & Frith, D. W. 1994. Discovery of nests and an egg of Loria's Bird of Paradise *Cnemophilus loriae*. *Bull. Brit. Orn. Cl.* 114: 182-192.

Frith, C. B. & Beehler, B. M. 1998. *The birds of paradise Paradisaeidae*. Oxford Univ. Press.
Hartert, E. 1910. On the eggs of the Paradisaeidae. *Novitates Zoologicae* 17: 484-491.
Mayr, E. & Rand, A. L. 1937. Results of the Archbold Expeditions. 14. Birds of the 1933-1934 Expedition. *Bull. Am. Mus. Nat. Hist.* 73: 1-248.
Rothschild, Lord W. 1898. Paradisaeidae. *Das Tierreich* 2 Lieferung 1-52. Verlag von R. Frielander und Sohn, Berlin.
Sims, R. W. 1956. Birds collected by Mr. F. Shaw-Mayer in the central highlands of New Guinea 1950-1951. *Bull. Brit. Mus. Nat. Hist.* 3: 389-438.
Smithe, F. B. 1975. *Naturalist's color guide*. American Museum of Natural History, New York.

Address: Dr. A. L. Mack & Dr. D. D. Wright, Wildlife Conservation Society, P.O. Box 277, Goroka, EHP, PAPUA NEW GUINEA. email: amack@wcs.org dwright@wcs.org

New distributional sightings of 28 species of birds from Dpto. Nariño, SW Colombia

by Ralf Strewe

Received 3 September 1999

Recent fieldwork by the author during a two-year study (August 1996 – July 1998) of the biogeography and altitudinal migration of tanagers *Thraupinae* within the Chocó Endemic Bird Area of Pacific Colombia (Strewe 1999) has yielded noteworthy distributional records of birds, including new distributional records for Dpto. Nariño, for the Pacific slope in Nariño and one species new to Colombia. Much of the information included in this paper results from avifaunal surveys within the project area along an altitudinal gradient from 400 to 3,200 m on the Pacific slope in Nariño. Additionally, excursions were made to different localities in Nariño.

The majority of records included herein were obtained at 8 localities:

(1) Miraflores, a small village on the NW slope of the Volcan Cumbal at 2,800 m (1°02´N, 77°52´W). Humid montane forest at altitudes between 2,500 to 3,200 m were surveyed in the vicinity of this village.
(2) La Planada Nature Reserve (1°09'N, 77°58'W) protects *c.* 2,500 ha of wet premontane forest at 1,800-2,100 m.
(3) Rio Ñambi Nature Reserve (1°18'N, 78°05'W) includes pluvial premontane forest at 1,000-1,600 m (*c.* 1,500 ha).
(4) El Pangan Nature Reserve, established 1998 (*c.* 1,000 ha, 1°21'N, 78°04'W), includes pluvial premontane forest in the lower Rio Ñambi valley at 600-1,400 m.
(5) Pueblo Nuevo, a small village at the foot of the Andes (390 m) surrounded by wet lowland and foothill forest (1°29'N, 78°14'W).
(6) The Upper Patía valley was visited during a two-day excursion on 4-5 January 1998; dry thickets and secondary forests on the W slope of the valley around the villages Leiva and El Rosario (950-1,200 m) were surveyed.